OREGON BUSINESS REVIEW

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OREGON BUSINESS - AUGUST

	Compared with July 1944	Compared with August 1943
Bank Debits	— 0.2%	— 0.7%
Retail Sales	+ 11.0	+ 8.3
Building Permits	+ 60.8	— 67.7
Lumber Production (weekly average)1/	+ 20.6	— 4.9
Ordinary Life Insurance Sales	+ 3.3	+ 15.0
Gasoline Sales	+ 4.6	— 2.9
One Business Failure for September ($25,000)	No Failures	No Failures

1/ Western Oregon and Western Washington

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THE DEVELOPMENT OF THE MASS TRANSIT PATTERN OF PORTLAND, OREGON

By
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In Portland, the pattern of mass transit has been the product of the combined forces of geography, mechanical advancement, competition, and real-estate development, and as a result the map of the city's transit system shows strange inconsistencies, the survival of early conditions and situations. Once a transit route is established, it is not easily changed; people do not like to have their habits suffer interference.

However, most of the pattern has been dictated by Portland's location: a curving shelf on the west side of the Willamette River, hemmed in on three sides by hills, and fronting a rolling plain opening beyond the east bank of the river. In early years, the town felt no lack of space, but once the shelf on the west side was filled, the overflow of settlement had to spread over the east side.

The natural routes of travel in the town were to the north and south along the river, and to the east over the plains; to the west, only a single narrow pass led to the fertile back country.

As a city grows, several forms of local transit will develop, depending upon whether the movement requires a long haul of passengers on fast schedules, or a short haul on slow but frequent ones. The first satisfies the needs of those who must be moved from the urban center to the outskirts--a radial system of suburban routes; the second provides for mass movement within the center itself. Mass urban transit, therefore, would naturally develop on the west side of Portland; suburban or radial transit would reach to the north, south, and east. The hills and the narrow pass would discourage rapid settlement in fringing suburban areas to the west.

Speed and frequency of schedules are relative, however, and are governed by time and need. Thus, in 1851 the steamboat Hoosier, fashioned from a ship's longboat in which was mounted a pile-driver engine, furnished an uncertain daily round-trip schedule between Oregon City (which, incidentally, was the urban center) and Portland, providing what amounted to rapid transit on the north-south route, just as did the Vancouver service, beginning in 1855, by offering the breath-taking speed of three hours on the run from Portland. Stephens' flat-bottomed ferry across the river in Portland was the pioneer in the suburban transit between the east side and the west side of what in time would be a city.

Portland grew steadily, if not spectacularly. With the establishment of the railroad terminals, expansion speeded up; and, because the terminals were on the east bank of the river, the east side came quickly to be a minor urban area itself. Civic pride in Portland demanded that the town have metropolitan appearance, and in 1871 the sure sign of progress was a horse railway. Therefore Portland must have one. Of course, if the horsecar line followed a natural route of travel and satisfied a need for mass transportation, so much the better; but, if it did not, it still served as a kind of civic window-dressing and prideful display. In 1872 the Portland Street Railway Company, born of civic ambition rather than need, laid track along First Street on the west, or urban, side of the river, and began to serve the city's business district. For a decade the company had a monopoly on the town's local transit business, simply because there was not enough traffic to tempt competition; but in 1882, during the boom attending the opening of the transcontinental connections, two more horsecar lines were built in Portland: the Multnomah Railway's route on Washington and Thirteenth to the foot of the hills, and the Transcontinental Street Railway's tracks on Glisan, Third, Morrison, Eleventh, and Nineteenth streets. With the exception of some short segments, the routes of these early lines are still maintained in the mass transit pattern.

At about the same time closer connection between the east side and the west side became necessary to improve intercourse between parts of the city. Steam ferries, which had early replaced the original scow ferries, operated from the ends of the main streets; but in 1887 the opening of the Morrison Street Bridge permitted uninterrupted flow and movement of traffic. Almost simultaneously with the opening of the bridge, the first horsecar line was built on the east side, a reflection of the development of that section. The concurrent opening of bridges and car lines fixed definitely the arteries that would carry traffic away from the urban center and toward the contiguous residential surburban districts.

During the 1880's, moreover, rapid development of the railway as a form of mass transit forced out the steamboat from suburban service. Thus, in October of 1880 the

steamboat on the Vancouver route was replaced when the Portland and Vancouver Railway opened its narrow-gauge steam "dummy"1/ line from a terminal near the Stark Street Ferry north to the Columbia River, where it connected with a second ferry. Fourteen round trips daily connected city and suburb. At the same time the newly completed Portland and Willamette Valley Railway began running commuter trains between its terminal at Jefferson Street and the town of Oswego. Although steam traction was not particularly successful in urban service, it was adaptable to suburban roads, and rather quickly a number of light, inexpensively built steam lines radiated from Portland to outlying suburbs: Sunnyside, Mt. Tabor, St. Johns, and West Portland Park. Most of these roads were operated as extensions of urban or local car routes and were built usually to entice settlement in newly subdivided real-estate promotions. On the light tracks, trains of short, open-platformed wooden coaches were dragged by "dummies." By the aid of these little trains, rocking over uneven rails, the east side of Portland was enabled to grow and the settled area to spread out across the open plains.

The steam lines aided the east side primarily; on the west side the hills formed a barrier to growth, forcing the shelf below to become congested. Some hardy citizens built homes on the steep slopes, but access to the heights above the city was difficult, and only those wealthy enough to maintain private carriages could live there, and even carriages could ride only the lower ridges. Steam dummy locomotives could not mount the grades to the crest. But cable cars could, and in 1887 the Portland Cable Railway built a line along Fifth and Jefferson to the foot of the hills and then south up a long, straight, inclined trestle to Portland Heights. With cheap, speedy, safe transportation, the heights promptly became a popular residential area.

In 1888 electrical propulsion of streetcars was experimental and rather suspect. However, as a town once had had to have its horse railway, now it must have an electric railway, and the trolley car's disconcerting habit of burning out its motors and blowing out its fuses, to an accompaniment of flashing arcs, sharp reports, and spurts of blue smoke that scared the wits out of neighboring horses and citizenry, was all regarded as no more than a distressing but necessary phase of progress. In spite of its believed dangers, the electric car had practical advantages in urban traction: it was speedy, faster than steam or horse-drawn cars, and clean--leaving no smoke and no fumes and no residue that made work for the patient white-wings. It was inevitable that Portland would soon have electric cars on its streets.

An east side company first ran electric trolley cars in Portland; this was the Willamette Bridge Railway, operating a system of horse and steam lines on east-side local and suburban routes. On November 1, 1889, it ran electric cars across the railroad bridge to Third and Glisan on a route reaching north on Williams Avenue to the terminal of its St. Johns steam line. Two months later the Metropolitan Railway began operation of its independent line on Second Street, extending to remote Fulton. Rapidly thereafter other lines were built or horsecar lines electrified. At the same time a frantic scramble went on among groups trying to control and organize the traction companies, with the result that a grand, confusing series of incorporations, bankruptcies, and consolidations unrolled until 1907, when all lines were united under the Portland Railway, Light and Power Company which has, with its subsequent periodic financial reorganizations and changes in name, emerged today as the Portland Traction Company and the Portland Electric Power Company. First of the combinations was the City and Suburban Railway Company, organized in 1891, which brought together

1/ Small locomotives housed in and otherwise disguised to resemble streetcars.

and electrified lines on Third, Glisan, Morrison, and Yamhill streets and suburban routes on the east side to Waverley, St. Johns, and Mt. Tabor. Hardly had the City and Suburban been formed before the rival Portland Consolidated Street Railway came into being, took over the Metropolitan Railway, and electrified the lines of the Portland and Vancouver Railway and the Multnomah Street Railway.

When at last the various reorganizations and combinations were completed, Portland's transit system had assumed largely its present pattern. Since the consolidation, some lines that began as independent local routes have become merely segments of longer lines; others that were built as suburban have become, as the result of the city's growth, simply local routes; and still others, built as interurbans, now furnish service that is essentially suburban. After 1907 a few extensions remained to be built, mainly short feeders connecting existing lines with specific traffic sources or out-of-the-way real-estate tracts, such as the Kenton, Country Club, Park Rose, and Errol Heights lines. Some short connections and cutoffs were added, and new loops were installed in the downtown district. By the time the extensions were finished, Portland had one of the most extensive transit systems in the United States and was operating more cars per thousand of population than were operated in any other city.

Originally Portland's carlines began from terminals in the business district and meandered into outlying residential sections, but in time the downtown turn-backs were replaced by a complicated system of loops. Moreover,, both the east side and west side crosstown lines passed through the heavy downtown traffic. As a result, passengers were forced to transfer from route to route at points where traffic was naturally heaviest. Portland's mass transit, therefore, did not permit an easy movement or free flow of traffic from one part of the city to another but tended to funnel it and choke it not only through the necessarily narrow arteries of the bridges but also through the crowded downtown transfer points as well.

As Portland grew, so did its hinterland, and a need arose for extension of the radial transit lines. The development of the interurban network was governed by the economic growth of the city, by the geographic situation of the city, and by the technological problems involved in the construction of long electric railways. In 1890 the source for electric power for trolleys could be no more than three or four miles from the most distant point on the line. However, the problem of transmitting electric current at high tension over long distances without undue loss was solved by 1893 by the Portland General Electric Company, which in that year began supplying the city of Portland with power generated at the falls in Oregon City; at the same time the East Side Railway began the operation of an electric railway paralleling the transmission line and drawing current from that line throughout its length between the two towns, without supplemental sources of power intermediately located. This was the first electric interurban railway in the United States. Built as an extension from the Sellwood electric suburban road, the Oregon City line operated its first car between the Portland terminal at Second and Morrison and the end of track at Oregon City on February 16, 1893. A newspaper reporter, on the inaugural trip, noted that his car "was soon bowling along past the city limits through orchards and gardens, and tracts which are being cleared and graded, preparatory to being platted." The interurban electric railway extended the area in which the city worker might live on his own land and still be within easy distance for daily commuting to his job in the city; consequently, rapid development of the lands alongside the roads almost invariably followed the building of new electric interurbans.

For half a century the Oregon City interurban has continued to provide service. When it began operating, however, it was too clearly a pioneer, and its first years

were uncomfortable, both for its succession of owners and for its passengers, while its financial and physical structure deteriorated together. Not for over a decade after its opening was there any further general development of electric railways in the Northwest; not until after the turn of the century did the population of northwestern cities warrant extensive interurban construction. But about 1904 a wave of interurban railroad building struck the country, the Pacific Northwest included. The first new development in Portland was the Oregon Water Power and Railway Company, which bought the limping Oregon City line and then built its own road to serve its power plants on the Clackamas River at Cazadero.

In the great consolidation, the O.W.P. became part of the P.R.L. & P., and its interurban system was integrated with the rest of the system that now provided three types of service: local, suburban, and interurban. At about the same time other interurbans were built, but the Oregon City and Gresham lines tapped the only genuinely productive suburban areas, leaving only the more remote back country of Washington County and the Willamette Valley to be served by rival roads. Among the new interurbans was the Oregon Electric Railway, built in 1908 from Portland to Salem and extended in 1912 to Eugene; for a quarter of a century the Oregon Electric furnished heavy passenger and freight service, using dining, observation, and sleeping cars as standard equipment.

The Portland interurban pattern, when finished, had its flaws. The western ridge of hills had no easy pass for a railway, and interurbans had to build either far south or far north from the main section of the city in order to find a route through the hills. The United Railway had to climb a stiff grade and thendip through a long tunnel under the main ridge to reach its stopping place at North Plains. Interurban service west from Portland, therefore, could not provide rapid transit by a direct route. To the east, the Mt. Hood Railway and Power Company built a line from Montavilla Station, on the edge of Portland, to the upper reaches of the Sandy River, beginning nowhere in particular and reaching only wilderness. Had the original plan of the Mt. Hood line been executed--an electric line parallel to the Union Pacific tracks through Sullivan's Gulch--the company could have provided direct, high-speed rapid transit between a convenient downtown terminal and the thickly populated sections of the east side; without the extension, the road languished, even under ownership of the P.R.L. & P., which brought Mt. Hood cars into Portland over a roundabout line by way of Linneman and Ruby to Lents and Golf Junction.

The Southern Pacific and its "big red cars," running to Corvallis by Forest Grove and Newberg, had routes as good as geographic conditions permitted; its roadbed was solid and well maintained; its equipment was the finest obtainable; its service was good--and it failed. In short, the red electrics offered too much too soon. The Southern Pacific was providing heavy suburban service to a district not heavily settled and without enough potential passenger business. Electric freight service was not provided, and costs of maintenance and overhead put too heavy a burden on the parent company to permit long continuance. The red electrics and other urban and interurban electric lines had hardly completed their expansion when they faced competition by the new mechanical means of transit--the gasoline-propelled automobile. Every interurban road and local trolley system had to contend with the automobile's two forms of competition, from motor busses operating cheaply on public highways, and from privately owned and operated machines used by former patrons of the mass transit systems. Direct competition came first; and automobile bus line operated in Oregon in 1908, and the jitney--a private passenger vehicle operated for

profit on an uncertain and easily changed route, and charging a fare of five cents--arrived like a metallic plague to clutter the street railway tracks in 1915. From the jitney, of unhallowed memory, developed the motor bus used today in urban transit.

The motor bus, for mass transportation, had some advantages: usually its speed was lightly faster than that of a streetcar or interurban train; it was newer, hence modern and fashionable; it had no initial or maintenance expense for permanent way; it paid relatively few and low taxes; its labor costs were not as heavy as those of railway lines. Moreover, the service it rendered was flexible; busses could be shifted from route to route, and routes themselves could be changed at will. On the other hand, overall maintenance per operating unit was higher, and busses became obsolescent more quickly than did the apparently immortal electric cars. But in time the bus, aided by judicious financial backing by its manufacturers, began to replace the railway car, especially after the introduction of the "safety coach" and the trolley bus in local service.

In Portland the first jitneys followed established carlines neatly skimming off the cream of business; but the first busses used by the traction company were placed on a new route across the Ross Island Bridge, established to avoid the costs of tolls and tracklaying on a line that did not promise heavy traffic. Soon after the establishment of the Powell Valley line in 1927, other motor busses were put in service on routes that usually either replaced unprofitable short car lines or opened new feeder lines in areas that offered some but not heavy traffic. In 1932, when the Portland Traction Company was reorganized in its most recent corporate crisis, its transit system was completely overhauled and a shift from electric railway to gasoline or electric bus operation became general. The most heavily travelled lines continued to be served by the most economical vehicle for their needs--the electric streetcar; on long lines of fairly heavy traffic servicing outlying residential districts, the high-speed trolley coach replaced the streetcar; on minor lines, feeders, crosstown, and new extensions, the gasoline bus, in various sizes, was put in service. When the transformation of the system was largely accomplished, the significant differences between the transit pattern in 1915 and in 1940 were slight, noticeable mainly in the addition of wandering crosstown feeder lines branching from the main routes. Lines long in existence, built originally as either steam or electric, remained in the pattern, although the form of propulsion might be changed.

A similar transformation took place in the interurban service; railways went out of operation and inconspicuous busses took over the business, following routes approximating the original lines but changed to permit highway use. First of the electric interurbans to suspend passenger service was the United Railways, which after a dispute over franchise discontinued operations between Portland and Linnton; beginning in 1927 a series of lines suspended: Troutdale, Mt. Angel, and Bull Run; in the early 1930's the red electrics stopped running, turning their scant traffic over to the motor busses of a subsidiary company; in the mid-thirties, the Oregon Electric finally dropped passenger service. Only the lines to Gresham and Oregon City remained served by electric cars.

By 1940 Portland had a transit system adequate for the size and situation of the city and adapted to the type and amount of traffic carried. The war has put unexpectedly heavy loads on the lines. On the whole, however, they have proved able to handle the crowds, and an attempt to revive both steam ferries and steam suburban commuter trains has failed from lack of patronage (the private automobile, in spite

of restrictions, still proved to be too great competition). Today only the Oregon City line shows a growing need for special suburban service. On that road, which has paralleling highway competition, equipment has been replaced and modernized, and an entirely new fleet of electric railway cars is being designed to fit the road's unique requirements.

What Portland's eventual needs in transit will be depends upon the rate and direction of the growth of the city, on methods of regulating automobile traffic, on the number of privately owned single-family automobiles operated in the city, and on the possible development of new forms of economical and high-speed equipment for mass transportation. The present system is flexible and can be expanded; but, should the city continue to grow toward the east and north, should the industrial area continue to flourish, and should new, remote suburbs develop, then a pattern of rapid transit, superimposed on the present pattern, must be developed. Fortunately, the outlines of such a pattern for rapid transit have already been sketched, and the lines, which may parallel but which must not be identical with existing lines, can be mapped. Portland's transit system is now in a period of adaptation, not experiment.

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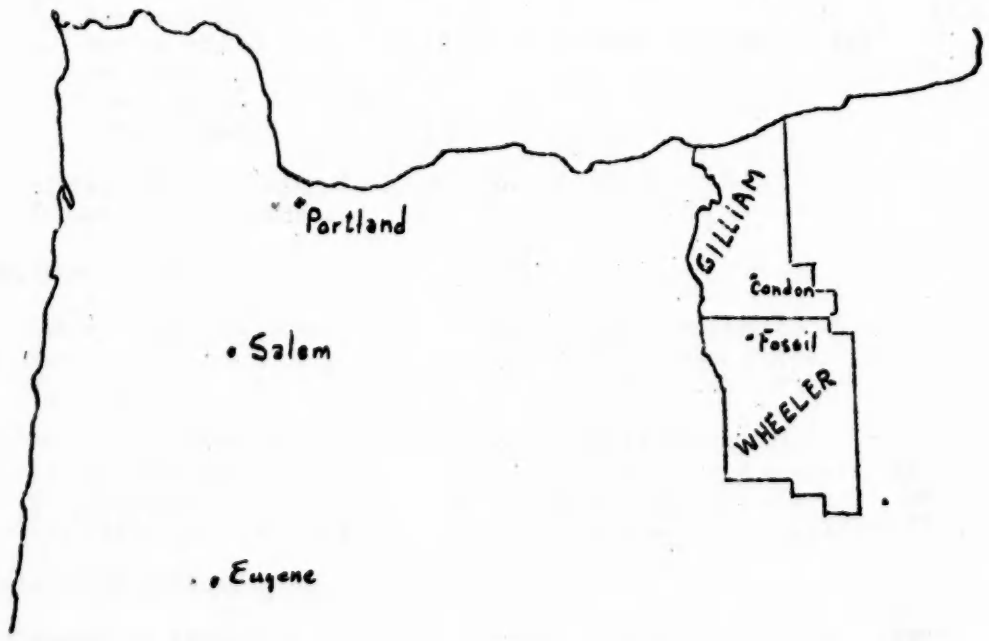

COUNTY BUSINESS ACTIVITY SERIES

Gilliam and Wheeler Counties

COUNTY BUSINESS ACTIVITY SERIES

Correction: The average value of farms in Wasco County is $10,885. This corrects the figure given in line 4 D of page 14 in the August 31, 1944, issue of the Oregon Business Review.

Gilliam County

1. Area: 1,211 square miles (775,040 acres)

2. Population:

   A. Number: 1944 2,143 (Ration Book IV, January 1, 1944)
   1940 2,844
   1930 3,467
   1920 3,960

   B. Characteristics (1940):
   1. Per cent native born white. 94.9
   2. Per cent between 15 and 65 (potential labor reservoir). . . 71.2
   3. Per cent living in rural areas. 44.5
   4. Median school years completed by persons 25 years of age or older:
      a. Male . . . 8.6
      b. Female . . 10.1

   C. Cities and towns with 2,500 population or over: none
   (County seat: Condon)

3. Employment (1940):

   A. Labor force (i.e., number of persons normally employed) 1,356
   1. 84.6 per cent of men over 14 included in labor force
   2. 23.4 per cent of women over 14 included in labor force

   B. Principal industries in which labor force is employed:
   1. Agriculture 597
   2. Construction. 96
   3. Railroads 73

4. Agriculture (1940):

   A. Number of farms 292
   B. Average size of farms . . . . . 2,783 acres
   C. Average value of farms (land and buildings) $24,536
   D. Per cent of tenancy 22.6

5. Housing (1940):

   A. Number of dwelling units in county 1,010 (average of 3.49 persons per occupied dwelling)
   B. Per cent of dwellings occupied by owners 55.6

6. Manufacturing (1940):

   A. Number of establishments: 1

7. Trade (1939):

   A. Retail: 69 establishments with sales of $1,339,000
   B. Wholesale: 17 establishments with sales of $955,000

Wasco County

1. Area: 1,707 square miles (1,092,480 acres)

2. Population:

   A. Number: 1944 2,654 (Ration Book IV, January 1, 1944)
   1940 2,974
   1930 2,799
   1920 2,791

   B. Characteristics:
   1. Per cent native born white 96.5
   2. Per cent between 15 and 65 (potential labor reservoir) . 68.7
   3. Per cent living in rural areas 38.9
   4. Median school years completed by persons 25 years of age or older:
      a. Male . . . 8.6
      b. Female . . 9.9

   C. Cities and towns with 2,500 population or over: none
   (County seat: Fossil)

3. Employment (1940):

   A. Labor force (i.e., number of persons normally employed) 1,274
   1. 85.0 per cent of men over 14 included in labor force
   2. 14.1 per cent of women over 14 included in labor force

   B. Principal industries in which labor force is employed:
   1. Agriculture 528
   2. Lumber (304 in mills, 32 in logging). 336

4. Agriculture (1940):

   A. Number of farms 249
   B. Average size of farms . . . . . 3,103.8 acres
   C. Average value of farms (land and buildings) $12,300
   D. Per cent of tenancy 10.8
   E. Per cent of county in farms 70.7

5. Housing (1940):

   A. Number of dwelling units in county 959 (average of 3.25 persons per occupied dwelling)
   B. Per cent of dwellings occupied by owners 45.5

6. Manufacturing (1940):

   A. Number of establishments: 6

7. Trade (1939):

   A. Retail: 44 establishments with sales of $800,000
   B. Wholesale: 4 establishments with sales of $256,000

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OREGON BUSINESS - AUGUST

Bank Debits. The debits (checks charged against customer accounts) reported by 88 banks and branches were virtually the same as for July 1944 and August 1943. The table on the following page indicates that this was not true of every section of the state by itself.

	Number of Banks Reporting	Debits August 1944	Compared with July 1944	Compared with August 1943
Oregon	88	$603,904,748	— 0.2%	— 0.7%
Portland	24	453,325,646	+ 5.5	+ 1.2
Lower Willamette Valley	9	42,437,334	+ 2.3	+ 15.8
Upper Willamette Valley	12	38,053,733	— 3.2	+ 11.2
North Oregon Coast	4	15,489,638	+ 19.4	+ 7.5
Douglas - Coos Bay	4	9,848,352	+ 13.5	+ 29.0
Southern Oregon	5	15,987,752	— 5.0	+ 0.9
Upper Columbia River	6	9,119,620	— 2.5	+ 22.3
Pendleton	6	12,095,303	+ 4.2	+ 4.1
Central Oregon	4	6,494,672	+ 14.2	— 15.1
Klamath Falls - Lakeview	4	14,811,601	— 10.9	+ 7.6
Baker - La Grande	7	8,956,623	— 0.2	+ 17.4
Burns - Ontario	3	4,284,474	+ 11.0	+ 34.2

Retail Sales. The August sales of 474 independent Oregon retailers were higher than the previous month and the same month a year ago. The percentage change by kind of business is shown in the table below.

	Compared with July 1944	Compared with August 1943
Oregon	+ 11.0%	+ 8.3%
Department Stores	+ 24.8	+ 12.0
Food Stores	— 0.3	+ 9.8
Eating and Drinking	+ 1.0	— 0.3
Drug Stores	+ 2.9	+ 5.8
Apparel Stores	+ 25.9	+ 12.7
Motor Vehicle Dealers	— 0.7	+ 9.6
Furniture - Household - Radio	+ 15.6	— 9.5
Lumber - Building - Hardware	— 2.1	+ 7.4

The percentage change by marketing areas is shown in the table below.

	Compared with July 1944	Compared with August 1943
Oregon	+ 11.0%	+ 8.3%
Portland	+ 14.5	+ 4.1
Lower Willamette Valley	+ 10.1	+ 32.8
Upper Willamette Valley	+ 6.6	+ 12.2
North Oregon Coast	+ 9.6	+ 2.1
Douglas - Coos Bay	— 3.0	+ 33.1
Southern Oregon	— 0.1	+ 5.2
Upper Columbia River and Pendleton	+ 3.2	+ 4.3
Central Oregon and Klamath Falls - Lakeview	+ 3.2	+ 7.8
Baker - La Grande - Burns - Ontario	— 1.7	+ 16.3

Building Permits. Building permits for 47 identical cities and towns are shown below.

	August 1944	July 1944	August 1943
New Residential			
Astoria	$ none	$ none	$ 72,000
Baker	none	none	none
Bend	none	400	160,200
Eugene	9,700	9,400	200
Klamath Falls	no report	none	none
Medford	none	none	no report
Portland	64,950	54,650	2,337,050
Salem	none	400	none
Remainder of State	198,800	117,550	247,600
Total	273,450	182,400	2,817,050
New Non-Residential			
Astoria	$ none	$ 355	$ 255
Baker	none	none	none
Bend	400	6,025	200
Eugene	970	2,845	1,405
Klamath Falls	no report	none	none
Medford	200	250	no report
Portland	46,500	204,165	94,435
Salem	2,075	7,100	9,093
Remainder of State	192,058	52,098	36,262
Total	242,203	274,838	141,650
Additions, Alterations, and Repairs			
Astoria	$ 9,935	$ 3,550	$ 8,810
Baker	170	150	125
Bend	200	595	650
Eugene	48,695	19,903	24,334
Klamath Falls	no report	12,075	8,530
Medford	1,973	5,280	no report
Portland	439,130	122,505	292,045
Salem	11,201	24,138	14,764
Remainder of State	67,373	60,928	81,888
Total	578,677	249,124	431,146
GRAND TOTAL	$ 1,094,330	$ 706,362	$ 3,391,106

OREGON BUSINESS REVIEW
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